3M™ Light Shielding Tape 6012

Product Description

3M™ Light Shielding Tape 6012 is a black double coated tape consisting of clear PET film carrier coated with black color and high performance acrylic adhesive. It features excellent initial tack and good convertability.

Features and Benefits

- Good adhesion to many kinds of materials including most plastics, glass and metals
- Good cleavage strength on PC at high temperature
- Excellent light insulation
- Easy converting by die-cut

Product Construction/Material Description

Product Number	3M™ Light Shielding Tape 6012-30	6012-40	6012-60
Color	Black		
Adhesive / Carrier Type	High Performance Acrylic / PET		
Thickness without liner	0.03 mm	0.04 mm	0.06 mm
Liner Thickness / Type	0.038 mm / 0.023 mm PET		
Roll Size	Standard: 1000 mm x 100 m log roll Custom size can be supplied by request		

Applications

- Light insulating purpose of electronic devices
- General purpose joining and mounting application at indoor and outdoor use
- Holding and bonding of electronic devices
    - BLU bonding to LCD, BLU Module bonding, Appliance

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only, and should not be used for specification purposes.

Properties of 3M™ Light Shielding Tape 6012

Product Number	3M™ Light Shielding Tape 6012-30	3M™ Light Shielding Tape 6012-40	3M™ Light Shielding Tape 6012-60
Adhesive	Acrylic	Acrylic	Acrylic
Tape Thickness	0.03 mm	0.04 mm	0.06 mm
Adhesion 30 min dwell @ RT Modified ASTM D-3330 180 degree peel 2 mil PET backing	oz/in N/cm kg/25.4mm SS 39 4.2 1.1 PC 42 4.6 1.2	oz/in N/cm kg/25.4mm SS 42 4.6 1.2 PC 46 5.0 1.3	oz/in N/cm kg/25.4mm SS 49 5.4 1.4 PC 53 5.8 1.5
Adhesion 72 hrs dwell @ RT Modified ASTM D-3330 180 degree peel 2 mil PET backing	oz/in N/cm kg/25.4mm SS 42 4.6 1.2 PC 46 5.0 1.3	oz/in N/cm kg/25.4mm SS 46 5.0 1.3 PC 49 5.4 1.4	oz/in N/cm kg/25.4mm SS 56 6.2 1.6 PC 60 6.6 1.7
Shear Strength at RT Modified ASTM D-3654 1000 grams (1x1")	10,000 minutes	10,000 minutes	10,000 minutes
Shear Strength at 70ºC (158ºF) Modified ASTM D-3654 500 grams (1x1")	10,000 minutes	10,000 minutes	10,000 minutes
Light Insulating Property	99.99%	99.99%	99.99%

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength. To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane*****

***Note:** Carefully read and follow the manufacturer's precautions and directions for use when using solvents. Ideal tape application temperature range is 21°C to 38°C (70°F to 100°F). Initial tape application to surfaces at temperatures below 10°C (50°F) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

Environmental Performance

Humidity Resistance:

No significant reduction in bond strength is observed after exposure for 7 days at 32°C (90°F) and 90% relative humidity.

UV Resistance:

When properly applied, nameplates and decorative trim parts are not adversely affected by exposure.

Water Resistance:

Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength is maintained.

Temperature Cycling Resistance:

High bond strength is maintained after cycling four times through:

- 4 hours at 70°C (158°F)
- 4 hours at -29°C (-20°F)
- 4 hours at 22°C (73°F)

Chemical Resistance:

When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids and alkalis.

Storage

Store in original cartons at 21ºC (70ºF) and 50% relative humidity.

Shelf Life

If stored under proper conditions, these products retain their performance and properties for two years from date of manufacture.

Safety Data Sheet

Consult Safety Data Sheet before use.

Regulatory

For regulatory information about this product, contact your 3M representative.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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